

**Streamlined LCA of Alternate Computer Housings****Quality Assurance Surveillance Plan**

Performance Objective (Task)	Activities	Deliverables	Date(s) of Delivery	Acceptable Criteria
Task 1: Quality Assurance Project Plan (QAPP)	<p>Submission of a written QAPP that describes the methods that will be used to verify and validate all LCI data gathered from secondary data sources (excluding primary data)</p> <p>Develop a QAPP that contains elements of similar EPA QAPPs for secondary data used in other LCI efforts.</p> <p>The QAPP shall include consideration of the specific product systems that are identified by EPA as the focus of the task order</p> <p>Once EPA selects specific products for study, the EPA Contracting Officer Representative will provide more specific information to the awardee. The awardee will then have 20 days to deliver to EPA a project-specific QAPP, using elements described in the general QAPP described above.</p>	<p>A draft QAPP for the task order</p> <p>A revised QAPP for the task order</p>	<p>Delivered within 20 days of contract award</p> <p>Delivery within 2 weeks from submission of EPA comments to Contractor</p> <p>The final QAPP must be delivered for EPA review and approval at least 5 days prior to the collection of data, or a date negotiated and directed by EPA.</p>	<p>Project-specific QAPP clearly identifies what information will be sought from what types of possible data sources, and in order to model the relevant inventory data according to the stated study goal</p> <p>Project-specific QAPP will indicate how data will be reviewed in collection and modeling and how transparency of modeling assumptions and data sources will be retained and reported</p>

**Streamlined LCA of Alternate Computer Housings**

Performance Objective (Task)	Activities	Deliverables	Date(s) of Delivery	Acceptable Criteria
Task 2: Preparation of Background Material	<p>Search the open literature to collect and report relevant information on (1) the manufacture of computer monitors using plastics, resins, and blends, (2) potential alternate materials, and (3) current end-of-life management of computers, focusing on the plastic components.</p> <p>Address the following topics:</p> <ul style="list-style-type: none"> <li>- How computer housings are currently made and from what materials;</li> <li>- Types of plastic resins (including blends) predominantly used in the manufacturing of consumer electronics;</li> <li>- The current state of plastic recycling and the relevance to computers in the US;</li> <li>- Materials that are being used or can be used instead of plastic and how these alternative perform (i.e. useful life) in comparison to current plastic housings;</li> <li>- Published LCAs evaluating computer housing alternatives.</li> </ul>	<p>Draft report (approximately 10 pages) including full citations and annotated bibliography</p> <p>Revised final report</p>	<p>Draft due 30 days after award</p> <p>Final due 2 weeks from submission of EPA comments</p>	<p>Reasonable effort made to collect all information and justification for not obtaining data</p> <p>Summary of information collected is clear, concise, and presented in an understandable way</p> <p>Feedback from EPA has been addressed and is incorporated in the final report</p> <p>Report is organized, complete, well written, free of grammatical and typographical errors; References and citations are complete; Delivered within 2 weeks upon the receipt of EPA's feedback on the draft report</p>

**Streamlined LCA of Alternate Computer Housings**

Performance Objective (Task)	Activities	Deliverables	Date(s) of Delivery	Acceptable Criteria
Task 3: Collecting LCI Data	<p>Access to secondary data sources such as academic journals, patent literature, LCI databases (such as ecoinvent and GaBi), government reports, trade groups, investment reports, manufacturer's data and any other data sources available in the public domain.</p> <p>Creation of Excel spreadsheets to include LCI data and references to data sources, all assumptions used in the modeling and calculations of the data.</p>	<p>Compiled LCI data using Excel spreadsheets</p> <p>Communication of technical progress</p>	<p>To be completed within 60 days QAPP approval</p> <p>Weekly</p>	<p>Adherence to ISO standards and EPA guidance for LCA</p> <p>Compliance with QAPP requirements</p> <p>Weekly communication</p>

STREAMS 2

**Streamlined LCA of Alternate Computer Housings**

Performance Objective (Task)	Activities	Deliverables	Date(s) of Delivery	Acceptable Criteria
Task 4: Collecting Impact Data	Collect impact data, not available in TRACI, from secondary data sources in the public domain to describe the fate, transport, and toxicity of chemicals and compounds found in alternate materials in computer monitor casings identified in the LCI as releases, or potential releases, to the environment (including potential exposure by humans). Data include impact factors toxicity data, mass transport coefficients, partitioning coefficients, and solubility (i.e., fate and transport) data.	<p>Compiled impact data that supplements the impact data in TRACI needed to complete the LCIA;</p> <p>Compiled qualitative impact information in MS Word format for impacts where no modeling is available.</p> <p>Communication of technical progress</p>	<p>To be completed 30 days after Task 3 completion</p> <p>Weekly</p>	<p>Adherence to ISO standards and EPA guidance manual for LCA And TRACI</p> <p>Compliance with QAPP requirements</p> <p>Weekly communication</p>

**Streamlined LCA of Alternate Computer Housings**

Performance Objective (Task)	Activities	Deliverables	Date(s) of Delivery	Acceptable Criteria
Task 5: Submission of LCI Data and Impact Data	<p>Preparation of Excel spreadsheets of the LCI data following the template for LCI Unit Process Documentation provided by EPA.</p> <p>Preparation of a brief report outlining the key data points highlighting data gaps, along with a list of key references and data sources.</p>	<p>Excel spreadsheets containing LCI data</p> <p>A final report in MS Word format that summarizes the results of each LCA</p>	<p>Draft due 120 days after award</p> <p>Final due 2 weeks from submission of EPA comments</p>	<p>Timely submission with required information included</p> <p>Feedback from EPA has been addressed and is incorporated in the final report</p> <p>Report is organized, complete, well written, free of grammatical and typographical errors, and delivered within 14 days upon the receipt of EPA's feedback on the draft report</p>

**Streamlined LCA of Alternate Computer Housings**

Performance Objective (Task)	Activities	Deliverables	Date(s) of Delivery	Acceptable Criteria
Task 6: Market Analysis	<p>Develop a market analysis of the current capacity for recycling plastics from electronics, including:</p> <ul style="list-style-type: none"> <li>- Current volumes of end-of-life plastics generated by electronics recyclers that could be recycled into resin for new electronics.</li> <li>- Number of facilities that can recycle electronics plastics and process volumes;</li> <li>- Trends in the commodity values;</li> <li>- Estimates to increase the supply of recycled content plastics.</li> </ul> <p>Prepare a final report</p>	<p>Report outline</p> <p>Draft report</p> <p>Revised final report</p>	<p>Outline due within 10 days of task start</p> <p>Draft due 120 days after award</p> <p>Final due 2 weeks from submission of EPA comments</p>	<p>Summary of information collected is clear, concise, and presented in an understandable way</p> <p>Feedback from EPA has been addressed and is incorporated in the final report</p> <p>Report is organized, complete, well written, free of grammatical and typographical errors; References and citations are complete; Delivered within 2 weeks upon the receipt of EPA's feedback on the draft report</p>

STREAMS 2

**Streamlined LCA of Alternate Computer Housings**

Performance Objective (Task)	Activities	Deliverables	Date(s) of Delivery	Acceptable Criteria
All Tasks: Task Management	Monthly communication either electronically (email) or via telephone	Communication of recent activity	Weekly	Contractor initiates weekly communication if EPA has not already done so.
	Prepare Monthly Technical Progress Report	Monthly Technical Progress Report	Monthly	Summary of monthly activities; Identification of technical issues and how resolved; Identification of management issues and how resolved.
	Prepare Monthly Financial Progress Report	Monthly Financial Progress Report	Monthly	Summary of financial status, funding expended during the month and cumulative, and amount remaining. Identification of issues and how resolved.